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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,652	05/16/2001	Catherine Mary Graichen	RD-27989	1015

6147 7590 01/13/2006

GENERAL ELECTRIC COMPANY
GLOBAL RESEARCH
PATENT DOCKET RM. BLDG. K1-4A59
NISKAYUNA, NY 12309

EXAMINER

WILSON, YOLANDA L

ART UNIT	PAPER NUMBER
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2113

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/681,652	Applicant(s) GRAICHEN ET AL.	
	Examiner Yolanda L. Wilson	Art Unit 2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,9-13,16-21,23-26,28-30,32,34,36 and 38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4,20,21,23,29,30 and 32 is/are allowed.
- 6) ☒ Claim(s) 9-13,16-19,24-26,28,34,36 and 38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Allowable Subject Matter

1. Claims 1,2,4,20,21,23,29,30,32 are allowed.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 9-13,16-19 recites the limitation 'and notified users connected to the first computing unit over a network' and there is no prior reference to 'first computing unit'. 'a first computer unit' is disclosed below this limitation; therefore, there is insufficient antecedent basis for this limitation in the claim.

Claim Objections

4. Claim 25 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 25 is objected to because it contains the same limitation as the newly added limitation disclosed in claim 24. Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 24-26,28,34,36,38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris et al. (USPN 20020091972A1) in view of Eastman et al. (USPN 6226597B1). As per claims 24 and 34, Harris et al. discloses prompting a user to select a plurality of component of at least one of the plurality of subsystems, in response to the user selection, acquiring service data for the selected plurality of components on page 2, paragraph 0013, "Operating data are collected from the targeted one or more machines or processes on an established schedule." Harris et al. discloses determining age information and failure information from the service data for the selected plurality of components on page 2, paragraph 0023, "Operating data may consist of machine activity logs, error code logs, sensor logs and service history logs." Harris et al. discloses generating a statistical model according to the age information and failure information on page 2, paragraph 0012, "Predictive models are then created based on the analysis of the first set of historical operating data."

Harris et al. discloses further comprising compiling the predicted future failures into a report on page 2, paragraph 0013, "Prediction reports are generated detailing which errors will occur during successive prediction windows. The prediction reports identify the particular machines or processes on which the errors will occur, and specify the times at which the errors are predicted to occur." Harris et al. discloses issuing alerts to the user for the predicted future failures on page 2, paragraph 0013, "Prediction reports are generated detailing which errors will occur during successive prediction windows. The prediction reports identify the particular machines or processes on which the errors will occur, and specify the times at which the errors are predicted to occur."

Harris et al. fails to explicitly state predicting future failures for the life cycle of the plurality of components according to the statistical model.

Eastman et al. discloses this limitation in column 4, lines 36-42, "The simulation is based on the probabilistic distributions of the fatigue indication occurrence and fatigue failure life from block 10..."

It would have been obvious to one of ordinary skill in the art at the time the invention was made to predict future failures for the life cycle of the plurality of components according to the statistical model. A person of ordinary skill in the art would have been motivated to predict future failures for the life cycle of the plurality of components according to the statistical model because by detecting future failures of system components the operability of the system and its components can be maintained. Eastman et al. discloses in column 2, lines 47-50, "maintaining fatigue critical components in a system that maintains or increases the level of reliability or safety of the system while reducing the operating cost of the system for the system users."

6. As per claim 25, Harris et al. discloses further comprising compiling the predicted future failures into a report on page 2, paragraph 0013, "Prediction reports are generated detailing which errors will occur during successive prediction windows. The prediction reports identify the particular machines or processes on which the errors will occur, and specify the times at which the errors are predicted to occur."

7. As per claim 26, Harris et al. discloses further comprising generating the report to the user on page 2, paragraph 0013, "Prediction reports are generated detailing which

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errors will occur during successive prediction windows. The prediction reports identify the particular machines or processes on which the errors will occur, and specify the times at which the errors are predicted to occur.”

8. As per claims 28 and 38, Harris et al. discloses prompting the user to select additional subsystems and components to analyze on page 2, paragraph 0013, “Operating data are collected from the targeted one or more machines or processes on an established schedule.”

9. As per claim 36, Harris et al. discloses further comprising instructions for generating the report to the user on page 2, paragraph 0013, “Prediction reports are generated detailing which errors will occur during successive prediction windows. The prediction reports identify the particular machines or processes on which the errors will occur, and specify the times at which the errors are predicted to occur.”

Response to Arguments

10. Applicant's arguments filed 10/27/2005 have been fully considered. The rejection above of claims 24-26,28,34,36,38 is in view of claim 25 having been rejected in the previous action. The Examiner was mistaken objecting to claim 35, now cancelled, in the previous action. Claims 25 and 35 contain the same subject matter; therefore, the independent claims containing this subject matter are rejected.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yolanda L. Wilson whose telephone number is (571) 272-3653. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ylw

Yolanda L Wilson
Examiner
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A handwritten signature in black ink that reads "Yolanda L. Wilson". The signature is written in a cursive style with a horizontal line above the "n" in "Wilson".